Delphi's Next Generation Accident Data Recorder To Be Featured On Race Cars

INDIANAPOLIS, May 18 - Drivers at this year's Indianapolis 500 will benefit from improved safety on the track and in vehicles with Delphi Automotive Systems' second generation Accident Data Recorder (ADR2). As the official electronics provider to the Indy Racing Northern Light Series, Delphi will officially debut the ADR2 at the Indy 500 on May 28, where it will be featured on all vehicles competing in the race.

The ADR2 senses and records key vehicle parameters just prior to, during, and after an accident-triggering event. The unit has led to advancements in learning about the effectiveness of crash barriers, how to design race cars to better absorb the impact of an accident, and how to increase driver protection. Delphi originally developed the first generation ADR as a way to help improve Formula One racing circuit safety. The second generation ADR is currently used in both Formula One and Formula 3000 series.

Delphi's ADR2 technology stores five minutes of track time data in the event of an accident. "This technology gives Indy Racing teams the ability to analyze what happens to the car and the driver just prior to, during and after a crash," said Phil Casey, Indy Racing League technology director. "The IRL is grateful that companies like Delphi are committed to researching and developing these systems for race car drivers, and ultimately for the public."

Delphi has engineered ADR2 to be 40 percent lighter and 45 percent smaller than the first generation model. Other improvements include an enhancement in the detail of data provided, giving engineers a much better picture of the vehicle's operating parameters at the time of a crash. Delphi has also made improvements to the unit's internal sensor set.

To help determine the forces applied to a driver during an accident, the unit is now capable of monitoring 10 external sensors that may be strategically placed throughout the vehicle or on the driver. The unit also measures the rate of yaw in a moving vehicle, plus throttle position and steering angle, synchronizing data-recording activities with a real-time clock to aid in detailing the events of an accident.

Glen Gray, Delphi's motorsports engineering manager, said ADR2 gives accident investigators a remarkably clear picture of what the vehicle was doing during a crash, measuring not only speed but rotation through a sophisticated angular rate sensor. "ADR2 uses a series of accelerometers that measure the deceleration, helping to determine the severity of the impact," said Gray. "It does all this in an environment that is much more severe than anything you would find in a passenger vehicle."

The angular rate sensor will also be used in TRAXXAR®, Delphi's intelligent chassis control system that helps enhance vehicle stability and directional control over a variety of road conditions.

Since 1988, Delphi has been involved with open wheel racing to research and develop technologies to help improve driver safety. Today, a majority of the vehicles in Indy Racing, CART, Formula One and Formula 3000 series are equipped with several of Delphi's racing products such as engine control modules, track condition radios, coil driver modules, radio telemetry modules and electronic fuel injectors. NASCAR, Trophy Truck and several Sportscar Series also feature Delphi-developed technologies.

Delphi recently expanded its role with the Northern Light Series as the title sponsor of the Delphi Indy 200 in January 2000. In addition, the company has extended its sponsorship of Kelley Racing's driver Scott Sharp and teammate Mark Dismore through 2001.

Multi-national Delphi Automotive Systems (NYSE: DPH - news), with headquarters in Troy, Mich., USA, Paris, Tokyo and Sao Paulo, Brazil, is a world leader in transportation and mobile electronics components and systems technology. Delphi's three business sectors -- Dynamics & Propulsion; Safety, Thermal & Electrical Architecture; and Electronics & Mobile Communication -- provide comprehensive product solutions to complex customer needs. Delphi has approximately 213,000 employees and operates 176 wholly owned manufacturing sites, 41 joint ventures, 53 customer centers and sales offices and 30 technical centers in 38 countries. Delphi can be found on the Internet at http://www.delphiauto.com .

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